IN THE CLAIMS:

Claims 1-12. (CANCELLED)

13. (NEW) A method for obtaining a low-noise optical signal in a two-slit spectroscopic device, comprising:

(a) injecting into a first aperture of a two aperture scanning spectroscopic device a luminous beam emitted by a sample of said spectroscopic device;

(b) detecting a first intensity of the luminous beam after the luminous beam passes through the first aperture;

(c) generating, in response to said detecting a first intensity of the luminous beam after the luminous beam passes through the first aperture, a basic optical signal representative of said first intensity measured as a function of time, the basic optical signal comprising at least a first peak of intensity and having a full bandwidth at a half maximum;

(d) injecting the luminous beam through a second aperture of said spectroscopic device;

(e) detecting a second intensity of the beam after the beam passes through the second aperture;

(f) generating a corrective optical signal representative of the second intensity measured as a function of time, the corrective optical signal comprising at least a second peak of intensity and the first and second peaks of intensity being spaced by a gap; and

(g) subtracting the first and second optical signals to obtain a resulting signal, the resulting signal comprising the low-noise optical signal, the first and second apertures being spaced by a distance so that the gap between the first peak of intensity of the basic optical signal and the second peak of intensity of the corrective optical signal corresponds to 2 to 4 times the bandwidth.

14. (NEW) The method according to claim 13, wherein the first and second optical signals are expressible relative to the wavelength.

15. (NEW) The method according to claim 13 wherein first and second apertures are spaced by the distance so that the gap between the first and second peaks of intensity corresponds to approximately 3 times the bandwidth.

16. (NEW) The method according to claim 15, further comprising generating the basic optical signal and the corrective optical signal over an interval having a width slightly greater than the gap between the first peak of intensity and the second peak of intensity, the interval being between 1.2 and 1.5 times the gap and spanning approximately the first and second peaks of intensity.

17. (NEW) A method according to any preceding claim, wherein the low-noise optical signal is time integrated.

18. (NEW) A method according to any preceding claim further comprising simultaneously detecting the first and second intensities of the beam after the beam passes through the first and second apertures.

19. (NEW) A method according to any preceding claim, further comprising alternately detecting the first and second intensities of the beam after the beam passes through the first and second apertures and reconstructing the basic optical signal and the corrective optical signal by integration.

20. (NEW) A device for obtaining a low-noise optical signal comprising:

a first aperture traversed by a luminous beam;

a detector for detecting a first intensity of the beam, the detector disposed downstream of the first aperture, the detector generating a basic optical signal, the basic optical signal representative of the first intensity measured as a function of time, the detector comprising a single sensor;

a processing unit capable of processing the basic optical signal; and

a second aperture traversed by the luminous beam, the detector detecting a second intensity of the beam after the beam passes through the second aperture, the detector generating a corrective optical signal representative of the second intensity measured as a function of time, the processing unit subtracting the basic optical signal and the corrective optical signal generating a resulting signal, the resulting signal including the low-noise optical signal.

21.(NEW) The device according to claim 20, wherein in the first and second apertures comprise the slits of a spectroscopic device.

22. (NEW) The device according to one either of the claim 20 or claim 21, wherein the detector comprises a chopper disposed between the sensor and the first and second apertures, the chopper alternately directing the beam passing through the first aperture and the beam passing through the second aperture towards the sensor.

23. (NEW) A device according to either of claim 20 or claim 21, further comprising an integrator to reconstruct the basic optical signal and the corrective optical signal.